CLAIMS

What is Claimed:

1. A steering wheel for a motor vehicle comprising:
a core member having a substantially circular rim;
at least one dampening element secured about or within said rim in vibrational communication therewith, said dampening element comprising a periphery;
at least one spring member extending about said periphery thereby supporting said dampening element; and
a sleeve positioned about said dampening element, thereby covering the dampening element within said steering wheel.

2. The steering wheel of claim 1 further comprising a plurality of spring members symmetrically oriented about said dampening element.

3. The steering wheel of claim 2 wherein said spring member is an O-ring.

4. The steering wheel of claim 2 wherein said plurality of spring members is a plurality of O-rings.

5. The steering wheel of claim 1 wherein said dampening element has a density greater than the density of said core member.

6. The steering wheel of claim 1 wherein said spring member is formed from a resilient material or polymer.

7. The steering wheel of claim 1 wherein the substantially circular rim comprises a channel substantially complementary with said dampening element.

8. A method of manufacturing a steering wheel comprising the steps of:

providing a steering wheel core member having a circular rim;

providing at least one dampening element having a periphery;

positioning at least one spring member about the periphery of the dampening element;

positioning the at least one dampening element in a sleeve, the spring member resiliently supporting the dampening element therein; and

securing the sleeve about or within the rim of the steering wheel core member, thereby providing resilient suspension of the dampening element relative to the steering wheel core member.

9. The method of claim 8 further comprising the steps of:

positioning the core member and sleeve in a molding apparatus; and

delivering a flowable curable material into the molding apparatus, wherein the cured material adheres to the sleeve and core member, and is insulated from the dampening element and at least one spring member by the sleeve.

10. The method of claim 8 wherein the at least one dampening element comprises a plurality of dampening elements secured in at least one sleeve about the rim of the core member.

11. The method of claim 8 wherein the at least one spring member comprises a plurality of spring members.

12. The method of claim 10 wherein the at least one spring member comprises a plurality of spring members.

13. The method of claim 12 wherein the at least one spring member comprises a plurality of O-rings.

14. The method of claim 8 wherein the steering wheel rim comprises a channel for receipt of the sleeve.

15. A steering wheel formed according to the method of claim 8.

16. A method of providing for optimal vibration in a vehicle steering wheel assembly comprising the steps of:

forming a steering wheel core member having a substantially circular rim portion, the core member being connectable to a vehicle steering system;

providing at least one dampening element having a periphery;

positioning at least one spring element about the periphery of the at least one dampening element to form at least one spring assembly;

positioning the at least one spring assembly in a sleeve, wherein the at least one dampening element is resiliently supported in the sleeve by the at least one spring element;

rotationally fixing the sleeve about the rim portion;

wherein resilient support by the at least one spring element of the at least one dampening element facilitates resilient relative displacement between the sleeve and dampening element during vibration of the steering wheel assembly, thereby attenuating vibrations imparted thereto from the vehicle steering system.

17. The method of claim 16 wherein the at least one dampening element is formed from a material having a density greater than a density of the core member, thereby imparting an increased inertial resistance to vibration of the steering wheel assembly.

18. The method of claim 16 further comprising the steps of: providing a plurality of sleeves, each having a dampening

element with a different mass resiliently supported therein;

measuring vibration of the steering wheel assembly with each of the selected sleeves secured to the steering wheel core; and

selecting a sleeve from the plurality of sleeves to impart optimal vibration resistance to the steering wheel assembly based on vibrational characteristics imparted to the steering wheel assembly when secured thereto.

19. The method of claim 16 further comprising the steps of:

positioning a first number of resilient spring elements about a periphery of a dampening element;

placing the dampening element with the first number of resilient spring elements in a sleeve, and securing the sleeve to a steering wheel core;

measuring vibration of the steering wheel core with the sleeve mounted thereon;

positioning a second number of resilient spring elements about a periphery of a dampening element;

placing the dampening element with the second number of resilient spring elements in a sleeve, and securing the sleeve to a steering wheel core;

measuring vibration of the steering wheel core with the sleeve mounted thereon; and

selecting a number of spring elements for positioning on the dampening element to impart optimal vibration resistance to the steering wheel assembly based on vibrational characteristics imparted to the steering wheel assembly when secured thereto.

20. The method of claim 16 further comprising the steps of:

positioning a first at least one spring element having a first width about a periphery of a first dampening element;

placing the first dampening element with the first spring element having the first width in a sleeve, and securing the sleeve to a steering wheel core;

measuring vibration of the steering wheel core with the sleeve mounted thereon;

positioning a second at least one spring element having a second width different from the first width about a periphery of a second at least one dampening element, said first at least one dampening element equivalent to said second at least one dampening element;

placing the second at least one dampening element with the second at least one spring element having a second width in a sleeve, and securing the sleeve to a steering wheel core;

measuring vibration of the steering wheel core with the sleeve mounted thereon; and

selecting a width of spring elements for positioning on the dampening element to impart optimal vibration resistance to the steering wheel assembly based on vibrational characteristics imparted to the steering wheel assembly when secured thereto.